



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/074,404	02/12/2002	Rudolf Gartner	22750/525	7026
26646	7590	07/13/2005	EXAMINER	
KENYON & KENYON ONE BROADWAY NEW YORK, NY 10004			JUSKA, CHERYL ANN	
			ART UNIT	PAPER NUMBER
			1771	
DATE MAILED: 07/13/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/074,404

Applicant(s)

GARTNER ET AL.

Examiner

Cheryl Juska

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. In view of the Appeal Brief filed on April 15, 2005, PROSECUTION IS HEREBY REOPENED. An Office Action is set forth below.

2. To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office Action is non-final) or a reply under 37 CFR 1.113 (if this Office Action is final); or,

(2) request reinstatement of the appeal.

3. If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 11-33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Claims 11-33 are rejected because it is unclear if applicant intends step (i) to limit the nonwoven to having both fibers of 6-15 dtex and fibers of 1-5 dtex. The examiner has previously interpreted the claim as such. [Note the prior 112, 2nd rejections.] Additionally,

Art Unit: 1771

applicant has argued as such. However, upon further examination of the claim, step (i) is written as requiring only one of the two fiber ranges. Specifically, step (i) reads, “*at least one of* bonding fibers or filaments having a titer of 6-15 dtex in a portion of the spunbonded nonwoven by needling, *and* bonding fibers or filaments having a titer of 1-5 dtex in another portion of the spunbonded nonwoven by using one of water jets and a combination of water jets and needling.” [Emphasis added.] Thus, step (i) requires *only one of* (a) bonding fibers or filament of 6-15 dtex by needling *or* (b) bonding fibers or filaments of 1-5 dtex by water jets or water jets and needling. Therefore, the claim is indefinite because it is unclear what applicant really intends to encompass. Additionally, if bonding of only one of the fiber sizes is required in the spunbond, it is unclear what applicant intends to encompass with the term “another portion” of the spunbond nonwoven. Is the other fiber size present in the nonwoven, but not bonded? Furthermore, if the claim is interpreted as requiring both fiber sizes to be present in the spunbond nonwoven, the previous rejection regarding the lack of a structural relationship between said two fiber types is maintained.

7. Claims 11-33 are also rejected under 112, 2nd because it is unclear why a nonwoven that is merely needled, as opposed to water jet bonding, requires a drying step.

8. Also, said claims are indefinite because it is unclear what applicant intends to encompass by the term “thermosetting.” It is unclear how one “thermosets” a thermoplastic polymer. In the polymer art, thermosets and thermoplastics are two opposing classes of polymers differentiated by the ability to reshape the polymer. In other words, according to the definitions of the art, a thermoplastic polymer cannot be “thermoset.” For the purposes of examination, the “thermosetting” step is interpreted as thermally bonding the thermoplastic fibers.

Art Unit: 1771

9. Claims 21-24, 26, 27, 30, and 31 stand rejected for the use of the phrase "a 5% modulus value in the machine direction of [x] N/5 cm, but at least [y] Nm²/g." The phrase is indefinite for claiming a first value, then a preferred value, wherein said values have different units. Due to said indefiniteness, the limitations to modulus value are not given weight with respect to the prior art rejection set forth below.

10. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

11. Claims 11-33 stand rejected under 112, 1st paragraph for being non-enabled and for containing new matter not supported by the original disclosure as set forth in sections 7 and 8 of the Final Rejection.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 11-33 are rejected under 35 USC 103(a) as being unpatentable over JP 10-273873 issued to Watanabe in view of DE 29 00 888 and EP 13355 issued to Hammerschmidt et al.

Watanabe teaches a base fabric for tufted carpets comprising a nonwoven fabric layer A consisting of continuous filaments having a fiber size of 2-6 denier (2.2-6.6 dtex) and nonwoven fabric layer B consisting of continuous filaments having a fiber size of 6-15 denier (6.6-16.6

Art Unit: 1771

dtex) (abstract). The two fiber layers are interlaced by needlepunching (abstract). The needled nonwoven is then pressure welded with heat (abstract).

Thus, Watanabe teaches the claimed invention with the exception of the stretching step. However, it is well known in the art to stretch a nonwoven in order to further improve the strength and stability thereof. For example, DE 29 00 888 teaches stretch a spunbond nonwoven by 20-100% of the original length, while Hammerschmidt teaches a needlepunched nonwoven that is stretched 20-200% of the original length in order to increase the strength thereof. Hence, it would have been obvious to one skilled in the art to stretch the needled nonwoven of Watanabe in order to increase the strength and stability thereof.

With respect to the claimed drying step, it is argued that the needlepunched fabric need not be dried since it is not subjected to a water treatment. Alternatively, it is argued that any material which is wet will inherently be subjected to a drying step even if left at ambient temperature. Therefore, claims 11 and 13 are rejected.

With respect to claims 12 and 29, while the cited prior art fails to teach a finishing agent for improving mobility of the fibers or filaments, it is argued said claim is obvious over the art. Specifically, finishing agents for improving mobility (i.e., lubricating oils) are conventional in the textile art. Applicant is hereby given Official Notice of this fact. To adequately traverse such a finding, an Applicant must specifically point out the supposed errors in the Examiner's action, which would include stating why the noticed fact is not considered to be common knowledge or well-known in the art. Therefore, it would have been readily obvious to one skilled in the art to employ a lubricant in order to aid in mobility of the fibers during needlepunching and/or stretching.

Art Unit: 1771

Regarding claims 14 and 15, while the cited prior art fails to teach an additional treatment with a pair of heated rollers, it is argued said claims are obvious. Specifically, it is well known in the art that calendaring a fabric (i.e., treatment between a pair of heated rollers) is a conventional finishing step. Applicant is hereby given Official Notice of this fact. Therefore, it would have been readily obvious to one skilled in the art to calendar the nonwoven of the cited prior art in order to produce a finished product.

Additionally, regarding claims 16-20, while the cited prior art fails to teach calendaring with rollers having embossing points (i.e., embossing), it is argued said claims are obvious. Specifically, embossing is a well known method of bonding nonwovens and/or creating a textured surface of a nonwoven. Applicant is hereby given Official Notice of this fact. Therefore, it would have been readily obvious to one skilled in the art to emboss the nonwoven of the cited prior art in order to produce a bonded and/or textured product. Furthermore, the claimed surface roughness and the shape and area of embossing points are deemed obvious over the prior art. It has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 205 USPQ 215. The surface roughness, point shape and area are all variables that one skilled in the art can readily determine in order to produce a desired bond area and texture. Therefore, claims 16-20 are also rejected.

Regarding the limitations to mass per unit area and density, the prior art fails to teach these limitations. However, it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233. Therefore, it would have been readily obvious to one skilled in the art to select an appropriate basis weight and/or density in order to produce a desired

Art Unit: 1771

weight and thickness of the final end-product. Therefore, claims 21, 22, 24, 27, 30, and 31 are rejected.

With respect to the limitations that the nonwoven is polyethylene terephthalate (i.e., polyester) or polypropylene, the cited prior art fails to explicitly teach the fiber materials employed. However, it is argued these limitations are obvious over the art. Specifically, it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use. *In re Leshin*, 125 USPQ 416. Polyester and polypropylene are two very common fiber compositions employed in nonwoven materials. Therefore, claims 23, 25, 26, 28, 32, and 33 are also rejected.

Response to Arguments

14. Applicant's arguments filed with the amendment have been fully considered but they are not persuasive.

15. Applicant traverses the 112, 2nd rejection regarding the structural relationship of the two fiber types by asserting the claims contain “a reasonable degree of clarity and particularity,” and, as such, are definite under 112, 2nd (Brief, paragraph spanning pages 3-4). The examiner respectfully disagrees. Specifically, the structural relationship of the two fibers in the spunbond nonwoven with respect to the claimed “portions” is unclear.

16. Applicant traverses the 112, 2nd regarding the modulus units by asserting the claim language is known in the art as evidenced by DE 19 821 848 (Brief, paragraph spanning pages 4-5). In response, it is noted that said DE reference states “a specific strength of at least 4.3 N/cm, and an initial modulus at 5% elongation of at least 0.45 N/cm per g/m² of surface.” This

Art Unit: 1771

recitation is not equivalent to applicant's phrase. First, the DE reference is reciting two different properties (a) specific strength and (b) initial modulus, while applicant is only claiming a single property "a 5% modulus value." Secondly, "N/cm per g/m²" is not equivalent to applicant's Nm²/g. Therefore, applicant's arguments are unpersuasive and the above 112, 2nd rejection stands.

17. Regarding the 112, 1st rejection, applicant argues that the claims are enabled because the examiner has not met the burden for establishing that one would require undue experimentation to practice the invention (Brief, pages 5-8). The examiner respectfully disagrees. When interpreting the claim as requiring bonding of both fiber types, it is very clear that one cannot practice the method without undue experimentation since the specification does not teach or even fairly suggest what the "portions" are and how said "portions" and/or the two fiber types are structurally related within the nonwoven fabric. Therefore, applicant's arguments are found unpersuasive and the above rejection maintained.

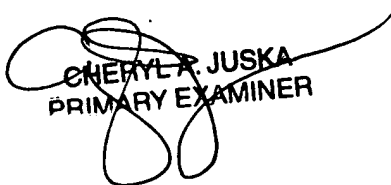
18. Regarding the 112, 1st for new matter, applicant argues, "using a different bonding process for the different fiber size ranges, as per the claim, necessarily results in a tufted backing having different portions" (Brief, page 10, 1st paragraph). The examiner respectfully but adamantly disagrees. Specifically, if, as applicant asserts, the two fibers are blended together in the nonwoven, how does one create different "portions"? Additionally, the specification does not provide support for the phrase "at least one of" in step (i). Therefore, applicant's arguments are found unpersuasive and the above rejection maintained.

Art Unit: 1771


Conclusion

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cheryl Juska whose telephone number is 571-272-1477. The examiner can normally be reached on Monday-Friday 10am-6pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached at 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

20. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


CHERYL JUSKA
PRIMARY EXAMINER

cj
July 6, 2005


TERREL MORRIS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700